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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,422	10/02/2003	Daniela T. Bratescu	15071US02	8452
23446	7590	05/08/2007		
MCANDREWS HELD & MALLOY, LTD			EXAMINER	
500 WEST MADISON STREET				SOROUSH, ALI
SUITE 3400			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/677,422	BRATESCU ET AL.
	Examiner	Art Unit
	Ali Soroush	1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 30 November 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3,7,8,10,23,24 and 26-32 is/are pending in the application.  
 4a) Of the above claim(s) 7,25 and 27-32 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-3,8,10,23,24 and 26 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgement of Receipt***

Applicant's response on 11/30/2006 to Office Action mailed on 11/01/2006 is acknowledged.

### ***Election/Restrictions***

Applicant's election of Group I (claims 1-3, 8, 10-13, 23, 24 and 26-32) with traverse and election of n-octyl sulfate as a species of C<sub>8</sub> alkyl sulfates, N,N-dimethyl-n-octylamine oxide as a species of C<sub>8</sub> amine oxide, and didecyl dimethyl ammonium chloride as a species of alkyl trimethyl ammonium chlorides is acknowledged. Applicant argues that inventions of Group I, II, and III should be rejoined, as the search and examination would not represent an undue burden on the examiner. However, a proper *prima facie* case of undue search burden associated with a prior art search and examination of the claims of the separate, distinct and independent inventions of Groups I through III has previously been established in the aforementioned Office Action. The independent inventions would require for searching to be conducted in a variety of classification Groups and subgroups and further merit searching in different search fields. The examiner's Election/Restriction is proper and therefore made Final.

### ***Status of Claims***

Claims 4-6, 9, and 14-22 were cancelled, claims 1-3, 7, 8, 10-13 were amended and claims 23-32 were added by preliminary amendment filed on 10/02/2003. Claims 7 and 25 are withdrawn as being directed to non-elected claims. Claims 27-32 are

withdrawn from consideration as being dependent on claim 25, which is a non-elected claim. Therefore, claims 1-3, 8, 10-13, 23, 24, and 26 are currently pending.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Applicant Claims
2. Determining the scope and contents of the prior art.
3. Ascertaining the differences between the prior art and the claims at issue; and resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-3, 8, 10-13, 23, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wierenga et al. (US Patent 5965514, Published 10/12/1999).

***Applicant Claims***

Applicant claims an antimicrobial composition comprising a surfactant blend and water. The surfactant blend consists essentially of an antimicrobial compound (i.e. alkyl trimethyl ammonium compound), an anionic surfactant (i.e. alkyl sulfate), a bridging surfactant (i.e. amine oxide), and optionally a cationic surfactant (i.e. alkyl trimethyl ammonium compound).

***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

Wierenga et al. teaches, a "Concentrated mildly acidic hard surface cleaning composition having superior combination of cleaning and disinfecting, comprise by weight of concentrated composition: from about 0.5 % to about 40% amine oxide detergent; from about 0 to 4% nitrogen-containing chelating agent; and from about 1 to about 30% quaternary disinfectant." (See abstract). "The amine oxide preferably has the formula  $RR'R''NO$ , where R is a substituted or unsubstituted alkyl or alkene group containing about 8 to about 30, preferably from about 8 to about 18 carbon atoms ..." (See column 5, Lines 41-44). "Groups R' and R'' are each substituted or unsubstituted alkyl or alkene groups containing about 1 to about 18, preferably from about 1 to about 4, carbon atoms." (See column 5, Lines 51-54). "The compositions contain at least one water miscible quat ..." (See column 6, Lines 24-25). "The preferred quaternary ammonium disinfectant has the formula:  $[R_1R_2R_3R_4N]^+X^-$  ..." (See column 6, Lines 30-33). "Example of suitable quaternary ammonium disinfectants include ... didecyl dimethyl ammonium chloride ..." (See column 6, Lines 44-46). Wierenga et al. further teach, "It has been surprisingly discovered that disinfectancy can be restored ... by reducing the surface tension of the liquid formula." (See column 10, Lines 66-67 and column 11, Lines 1-3). "Any number of suitable surface tension reducing agents such as solvents, surfactants ... may be added to the composition." (See column 11, Lines 14-16). "Only small amounts of surface tension reducing agent are required, e.g. from 0.005 to 2% by weight of the concentrated compositions ..." (See column 11, Lines 44-47). "A compatible surface tension reducing adjunct surfactant can be selected from anionic, nonionic, and zwitterionic surfactants." (See column 12, Lines 3-6). "Suitable

adjunct surfactants can include the alkyl- and alkylethoxylated-(polyethoxylate) sulfates, paraffin sulfonates, olefin sulfonates, ... alpha-sulfonates of fatty acids and of fatty acid ester, and the like. In general the detergent surfactants contain an alkyl group in the C<sub>6</sub>-C<sub>18</sub> range." (See column 12, Lines 10-16). Wierenga et al. also teach, "The composition herein are employed on hard surfaces in liquid form. Accordingly, the foregoing components are admixed with an aqueous carrier liquid." (See column 12, Lines 51-53). "Preferably, the aqueous carrier liquid is water ..." (See column 13, Line 1). "The combined amine oxide, surfactant, quat disinfectant, low surface tension and mildly acidic pH provides superior disinfecting properties without cleaning negatives ... The composition when diluted, has quat level from about 50 to about 1500, with a target use level of from about 500 to about 700 ppm for disinfectancy and of from about 50 to about 250 ppm for sanitizing ..." (See column 6, Lines 51-59).

***Ascertainment of the Difference Between Scope of the Prior Art and the Claims***

***(MPEP §2141.012)***

Wierenga et al. differs from the instantly claimed invention in that it discloses anionic surfactants in a list of possible agents to be used as a surface tension reducing agent in the composition. However, Wierenga et al. makes such a combination obvious. Further, Wierenga et al. differs from the instantly claimed invention in that it optimally comprises multiple quaternary ammonium compounds to be included in the composition, but none of the compounds are described as cationic surfactants. Wierenga et al makes obvious the use of multiple quaternary ammonium disinfectants, which can act as cationic surfactants.

***Finding of Prima Facie Obviousness Rational and Motivation  
(MPEP §2142-2143)***

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to add an anionic surfactant to the cleaning composition taught by Wierenga et al. One would have been motivated to do this because Wierenga et al. teaches that the addition of an anionic surfactant would reduce the surface tension of liquid formula. This would then force "more quat disinfectant to the surface of the bacterium to overcome the 'blocking' effect of the protonated amine oxide." (See column 11, Lines 4-6). The addition of an anionic surfactant would provide a composition that has combined concentration of quaternary ammonium, anionic surfactant, and amine oxide (bridging surfactant) from about 1.505 to about 72% by weight. Therefore, one would add an anionic surfactant to the composition taught by Wierenga et al. in order to provide for a more effective disinfecting solution. It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to add a second quaternary ammonium compound to the composition. One would have been motivated to do this because the addition of a second quaternary ammonium composition would increase the amount of disinfectant available for cleaning. Although, Wierenga et al. does not teach the quaternary ammonium compound to be a cationic surfactant the compound has the same structure as the instantly claimed cationic surfactant. Therefore, the quaternary ammonium disinfectant of Wierenga et al. would also inherently be a cationic surfactant. The examiner respectfully points out the following from MPEP 2112: "The discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render

the old composition patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). In *In re Crish*, 393 F.3d 1253, 1258, 73 USPQ2d 1364, 1368 (Fed. Cir. 2004), the court stated that "just as the discovery of properties of a known material does not make it novel, the identification and characterization of a prior art material also does not make it novel." Therefore, one would add a second quaternary ammonium to the composition of quaternary ammonium, amine oxide, and an anionic surfactant to provide for an elevated disinfecting formula. Examiner notes the use of "consisting essentially of" language in claims 1-3 and 26. However, the examiner has construed "consisting essentially of" to be equivalent to "comprising" for purposes of applying prior art. Examiner points to MPEP 2111.03: "For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, 'consisting essentially of' will be construed as equivalent to 'comprising.' See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355 ('PPG could have defined the scope of the phrase consisting essentially of' for purposes of its patent by making clear in its specification what it regarded as constituting a material change in the basic and novel characteristics of the invention.'). See also *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1240-41, 68 USPQ2d 1280, 1283-84 (Fed. Cir. 2003)." For the foregoing reasons the

instantly claimed antimicrobial composition would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Soroush whose telephone number is (571) 272-9925. The examiner can normally be reached on Monday through Thursday 8:30am to 5:00pm E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

Art Unit: 1616

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Ali Soroush  
Patent Examiner  
Art Unit: 1616



Johann Richter, Ph.D., Esq.  
Supervisory Patent Examiner  
Technology Center 1600